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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/648,486 | 08/27/2003 | Tosuke Kawada | 105687.01 | 4127 |
| 25944 | 7590 | 12/28/2004 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | NGUYEN, DONGHAI D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3729 | |

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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TECHNOLOGY CENTER R3700

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|------------------------|---------------------|--|
| | 10/648,486 | KAWADA, TOSUKE | |
| Examiner | Art Unit | | |
| Donghai D. Nguyen | 3729 | | |

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 August 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-3 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. 09/524,565.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a))

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/27/03.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____ .

DETAILED ACTION

Priority

1. The disclosure is objected to because the related application 09/524,565 has matured into a Patent therefore, after the “March 12, 2000” (page 2 of preliminary amendment dated 8/27/03) insert of --now US Paten 6,678,944.--.

Specification

2. The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Many terms or phrase are unclear and/or confusing for examples: “the electronic components” (claim 1, line 15) and “the electronic component” (claim 1, line 18) appear to be lack antecedent basis. Since it is unclear as to whether they are directed to electronic components of the preamble, line 2. Please clarify. “rotating, ... mounted next” (claim 16-18) is vague and indefinite, because it is not known as to how the rotatable body and the engaging

member being concurrently rotated in order to position the engaging member at a particular suction nozzle including a nozzle that holds a component thereto. It is noted that the rotatable body has to be independently rotated from the engaging member, in order to rotate to a position of the nozzle that holds the at least one of the electronic components.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,960,534 to Yazawa et al.

Regarding claim 1, Yazawa et al disclose a method of sequentially mounting, on a printed-wiring board (24) supported by a board supporting device (inherent), a plurality of electric components (25) which are sucked and held by respective ends of a plurality of suction nozzles (6) which are supported by a rotatable body (2) such that the suction nozzles are provided along a circle whose center (Fig. 4) is located on an axis line of the rotatable body and such that each of the suction nozzles is not rotatable relative to the rotatable body and is movable relative to the body in a direction parallel to the axis line of the body, the rotatable body being attached to a movable member (34) which is movable to an arbitrary position on a movement plane parallel to the printed-wiring board supported by the board supporting device, such that the rotatable body (2) is rotatable about the axis line thereof perpendicular to the movement plane,

the method comprising the steps of: sequentially positioning, by moving in combination of the rotation of the rotatable body (2) and the movement of the movable member (34), the respective electric components (25) sucked and held by the suction nozzles (6), at respective positions opposed to respective predetermined locations on the printed-wiring board (24), such that at least two of electric components thus positioned take different rotation positions (Fig. 1); rotating, concurrently with the rotation of the rotatable body, an engaging member (10) common to the plurality of suction nozzles, to a position corresponding to one of the suction nozzles that holds the electric component to be mounted next (Col. 9, lines 19-25); and, moving the engaging member to engage said one suction nozzle, so that said one suction nozzle is moved toward the board supporting device and the electric component held by said one suction nozzle is mounted on the printed-wiring board (Col. 4, lines 43-51). It is noted that reference (10) of the applied reference read on the broadly claimed “engaging member” of the present invention, since no structure different between the present application and the prior art, therefore the prior art capable of fulfilling all the functions associated thereof.

Regarding claim 2, see Col. 7, lines 24-29 and Col. 8, lines 29-33 of Yazawa et al.

Allowable Subject Matter

7. Claim 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art reference for the teaching of mounting component method.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



12/22/04

DN

MINH TRINH
PRIMARY EXAMINER

| Form PTO-1449 (REV. 8-83) | | US Dept. of Commerce PATENT & TRADEMARK OFFICE | | ATTY DOCKET NO. 105687.01 | | APPLICATION NO. Rule 1.53(b) Divisional Application of Application No. 09/524,565 | |
|---|--|--|---------|--------------------------------|--|--|-----------|
| INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | | | | APPLICANT Tosuke KAWADA | | | |
| | | | | FILING DATE August 27, 2003 | | | |
| U.S. PATENT DOCUMENTS | | | | | | | |
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | | CLASS | SUB CLASS |
| DR | | 4,794,689 | 01/1989 | Seno et al. | | | |
| | | 4,875,285 | 10/1989 | Haan et al. | | | |
| | | 5,864,944 | 02/1999 | Kashiwagi et al. | | | |
| | | 5,878,484 | 03/1999 | Araya et al. | | | |
| | | 5,960,534 | 10/1999 | Yazawa et al. | | | |
| | | 6,276,051 | 08/2001 | Asai et al. | | | |
| DR | | Re. 35,027 | 08/1995 | Ragard | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | | DOCUMENT NUMBER | DATE | COUNTRY | | CLASS | SUB CLASS |
| DR | | EP 0 691 804 A1 | 01/1996 | Europe | | | |
| DR | | JP-A-6-196546 | 07/1994 | Japan | | | |
| DR | | JP-A-6-291490 | 10/1994 | Japan | | | |
| | | | | | | | |
| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
| DR | | IBM Technical Disclosure Bulletin, Vol. 30, No. 10, pp. 47-49, (Armonk, NY, USA) | | | | | |
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| | | | | | | | |
| EXAMINER <i>Douglas Bryan</i> | | | | DATE CONSIDERED 12/22/04 | | | |
| Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | | | | | | | |
| <input checked="" type="checkbox"/> | | | | | | | |

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|-----------------------------------|--|-------------------------|---|-------------|
| Notice of References Cited | | Application/Control No. | Applicant(s)/Patent Under Reexamination | |
| | | 10/648,486 | KAWADA, TOSUKE | |
| Examiner | | Art Unit | | Page 1 of 1 |
| Donghai D. Nguyen | | 3729 | | |

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|-------------|----------------|
| | A | US-5,544,411 | 08-1996 | Kano et al. | 29/740 |
| | B | US- | | | |
| | C | US- | | | |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
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| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

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NON-PATENT DOCUMENTS

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|---|---|---|
| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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